

ABSTRACT

A digital VSB transmission system is disclosed. The system is compatible with the existing ATSC 8T-VSB receiver and able to transmit additional supplemental data as well as MPEG image/sound data. It initially encodes the information bit of the supplemental data with a 1/2 encoding rate in order to produce a parity bit and sends the parity bit together with the information bit. Therefore, both of the MPEG image/sound data and the supplemental data can be transmitted properly even through a channel having a high ghost and/or noise level. Particularly, it can significantly improve performances of the slicer predictor and trellis decoder of the VSB receiver.